

Appln. No. 09/846,122  
Amendment dated Apr. 07, 2005  
Reply to Office Action of Feb. 07, 2005  
Docket No. 6169-237

IBM Docket No. JP9-2000-0040US1

**Pending Claims:**

The following listing represents all pending claims in the instant application:

**Listing of Claims:**

1. (Currently Amended) A speech recognition system comprising:  
correspondence information, said correspondence information storing a  
correspondence between recognized words and a plurality of speech element arrays,  
each array comprising associated rendering information for expressing pronunciation  
of said recognized words, said associated rendering information comprising at least  
one set of alternate renderings of a recognized word;

said speech recognition system recognizing a recognizable word from a  
received user spoken utterance by comparing a speech element array generated from  
said user spoken utterance with said plurality of speech element arrays in said  
correspondence information;

wherein, in a dialog of a single person occurring within a certain period of  
time, said generated speech element array corresponds to one of said plurality of  
speech element arrays, a pronunciation prediction probability corresponding to said  
one of said plurality of speech element arrays ~~is lowered, said pronunciation~~  
~~prediction probability being different from said generated speech element array being~~  
reduced during said period of time by uniquely associating with said person one  
alternate rendering from the set of alternate renderings.

2. (Original) The speech recognition system according to claim 1, wherein:  
different speech element arrays expressing pronunciation for a single  
recognized word include a number corresponding to a previously measured

Appln. No. 09/846,122

IBM Docket No. JP9-2000-0040US1

Amendment dated Apr. 07, 2005

Reply to Office Action of Feb. 07, 2005

Docket No. 6169-237

pronunciation prediction probability and a recognized word corresponding to said previously measured pronunciation prediction probability.

3. (Original) The speech recognition system of claim 1, wherein said certain period of time is a period of time for a continued dialog.

4. (Original) The speech recognition system of claim 1, wherein said certain period of time is a period of time including a plurality of dialogs in one day.

5. (Original) The speech recognition system of claim 1, further comprising:  
means for detecting erroneously recognized words by referring a speaker to at least a part of said recognized words; and  
means for replacing one of said erroneously recognized words with a recognizable word which can be recognized as said one of said erroneously recognized words.

6. (Original) The speech recognition system of claim 2, further comprising:  
means for detecting erroneously recognized words by referring a speaker to at least a part of said recognized words; and  
means for replacing one of said erroneously recognized words with a recognizable word which can be recognized as said one of said erroneously recognized words.

7. (Original) The speech recognition system of claim 1, further comprising:  
means for replacing a recognized word which corresponds to a speech element comprising one syllable with a long vowel with a previously recognized word comprising one syllable with a short vowel corresponding to said long vowel, when a

Appln. No. 09/846,122  
Amendment dated Apr. 07, 2005  
Reply to Office Action of Feb. 07, 2005  
Docket No. 6169-237

IBM Docket No. JP9-2000-0040US1

number of recognized words does not conform to a previously registered number in said speech recognition system.

8. (Original) The speech recognition system of claim 2, further comprising:  
means for replacing a recognized word which corresponds to a speech element comprising one syllable with a long vowel with a previously recognized word comprising one syllable with a short vowel corresponding to said long vowel, when a number of recognized words does not conform to a previously registered number in said speech recognition system.

9. (Original) The speech recognition system of claim 5, further comprising:  
means for replacing a recognized word which corresponds to a speech element comprising one syllable with a long vowel with a previously recognized word comprising one syllable with a short vowel corresponding to said long vowel, when a number of recognized words does not conform to a previously registered number in said speech recognition system.

10. (Original) The speech recognition system of claim 6, further comprising:  
means for replacing a recognized word which corresponds to a speech element comprising one syllable with a long vowel with a previously recognized word comprising one syllable with a short vowel corresponding to said long vowel, when a number of recognized words does not conform to a previously registered number in said speech recognition system.

11. (Original) The speech recognition system of claim 7, further comprising:  
means for replacing a recognized word corresponding to a speech element having one syllable with a short vowel with another previously recognized word

Appln. No. 09/846,122  
Amendment dated Apr. 07, 2005  
Reply to Office Action of Feb. 07, 2005  
Docket No. 6169-237

IBM Docket No. JP9-2000-0040US1

corresponding to one syllable with a long vowel, said long vowel corresponding to said short vowel.

12. (Original) The speech recognition system of claim 8, further comprising:  
means for replacing a recognized word corresponding to a speech element having one syllable with a short vowel with another previously recognized word corresponding to one syllable with a long vowel, said long vowel corresponding to said short vowel.

13. (Original) The speech recognition system of claim 9, further comprising:  
means for replacing a recognized word corresponding to a speech element having one syllable with a short vowel with another previously recognized word corresponding to one syllable with a long vowel, said long vowel corresponding to said short vowel.

14. (Original) The speech recognition system of claim 10, further comprising:  
means for replacing a recognized word corresponding to a speech element having one syllable with a short vowel with another previously recognized word corresponding to one syllable with a long vowel, said long vowel corresponding to said short vowel.

15. (Currently Amended) A speech recognition method for use within a dialog of a single person, said dialog occurring in a certain period of time, said method comprising:  
receiving a first user spoken utterance and generating a first speech element array from said first user spoken utterance;

Appln. No. 09/846,122  
Amendment dated Apr. 07, 2005  
Reply to Office Action of Feb. 07, 2005  
Docket No. 6169-237

IBM Docket No. JP9-2000-0040US1

searching correspondence information, said correspondence information associating recognizable words with a plurality of speech element arrays that each comprise associated rendering information for expressing pronunciation of said recognized words, said associated rendering information comprising at least one set of alternate renderings of a recognized word;

generating a first recognized word by comparing said first speech element array and said plurality of speech element arrays in said correspondence information;

lowering a pronunciation prediction probability of one of said plurality of speech element arrays which differs from said first speech element array by uniquely associating with said person one alternate rendering from the set of alternate renderings and excluding other alternate renderings from further consideration during said period of time, wherein said one of said plurality of speech element arrays is made to correspond to said first speech element array;

receiving a second user spoken utterance and generating a second speech element array from said second user spoken utterance;

searching said correspondence information ~~comprising said lowered pronunciation prediction probability,~~ said other alternate renderings being excluded from consideration; and

generating a second recognized word by comparing said second speech element array and said plurality of speech element arrays in said correspondence information.

16. (Original) The speech recognition method of claim 15, wherein said correspondence information comprises one of said plurality of speech element arrays having a number corresponding to a measured pronunciation prediction probability corresponding to one of said recognizable words.

Appln. No. 09/846,122  
Amendment dated Apr. 07, 2005  
Reply to Office Action of Feb. 07, 2005  
Docket No. 6169-237

IBM Docket No. JP9-2000-0040US1

17. (Original) The speech recognition method of claim 15, wherein said certain period of time is a period of time for a continued dialog.

18. (Original) The speech recognition method of claim 15, wherein said certain period of time is a period of time including a plurality of dialogs in one day.

19. (Original) The speech recognition method of claim 15, further comprising:  
determining one of said recognized words to be erroneous by referring a speaker to at least part of said one of said recognized words; and  
replacing said erroneous word with a different recognizable word, said different recognizable word capable of being erroneously recognized as said erroneous word.

20. (Original) The speech recognition method of claim 16, further comprising:  
determining one of said recognized words to be erroneous by referring a speaker to at least part of said one of said recognized words; and  
replacing said erroneous word with a different recognizable word, said different recognizable word capable of being erroneously recognized as said erroneous word.

21. (Original) The speech recognition method of claim 15, further comprising:  
replacing one of said recognized words corresponding to a speech element comprising one syllable with a long vowel with a previously recognized word comprising one syllable with a short vowel corresponding to said long vowel wherein a number of said generated words does not conform to a previously registered number in said speech recognition system.

Appln. No. 09/846,122  
Amendment dated Apr. 07, 2005  
Reply to Office Action of Feb. 07, 2005  
Docket No. 6169-237

IBM Docket No. JP9-2000-0040US1

22. (Original) The speech recognition method of claim 16, further comprising:  
replacing one of said recognized words corresponding to a speech element comprising one syllable with a long vowel with a previously recognized word comprising one syllable with a short vowel corresponding to said long vowel wherein a number of said generated words does not conform to a previously registered number in said speech recognition system.

23. (Original) The speech recognition method of claim 19, further comprising:  
replacing one of said recognized words corresponding to a speech element comprising one syllable with a long vowel with a previously recognized word comprising one syllable with a short vowel corresponding to said long vowel wherein a number of said generated words does not conform to a previously registered number in said speech recognition system.

24. (Original) The speech recognition method of claim 20, further comprising:  
replacing one of said recognized words corresponding to a speech element comprising one syllable with a long vowel with a previously recognized word comprising one syllable with a short vowel corresponding to said long vowel wherein a number of said generated words does not conform to a previously registered number in said speech recognition system.

25. (Original) The speech recognition method of claim 21, further comprising:  
replacing a recognized word corresponding to a speech element comprising one syllable with a short vowel with another previously recognized word corresponding to one syllable with a long vowel, said long vowel corresponding to said short vowel.

Appln. No. 09/846,122  
Amendment dated Apr. 07, 2005  
Reply to Office Action of Feb. 07, 2005  
Docket No. 6169-237

IBM Docket No. JP9-2000-0040US1

26. (Original) The speech recognition method of claim 22, further comprising:  
replacing a recognized word corresponding to a speech element comprising one syllable with a short vowel with another previously recognized word corresponding to one syllable with a long vowel, said long vowel corresponding to said short vowel.

27. (Original) The speech recognition method of claim 23, further comprising:  
replacing a recognized word corresponding to a speech element comprising one syllable with a short vowel with another previously recognized word corresponding to one syllable with a long vowel, said long vowel corresponding to said short vowel.

28. (Original) The speech recognition method of claim 24, further comprising:  
replacing a recognized word corresponding to a speech element comprising one syllable with a short vowel with another previously recognized word corresponding to one syllable with a long vowel, said long vowel corresponding to said short vowel.

29. (Currently Amended) A machine readable storage, having stored thereon a computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps of:

receiving a first user spoken utterance and generating a first speech element array from said first user spoken utterance;

searching correspondence information, said correspondence information comprising a correspondence between recognizable words and a plurality of speech element arrays: that each comprise associated rendering information for expressing



Appln. No. 09/846,122  
Amendment dated Apr. 07, 2005  
Reply to Office Action of Feb. 07, 2005  
Docket No. 6169-237

IBM Docket No. JP9-2000-0040US1

pronunciation of said recognized words, said associated rendering information comprising at least one set of alternate renderings of a recognized word;

generating a recognized word by comparing said first speech element array and said plurality of speech element arrays in said correspondence information; and

lowering a pronunciation prediction probability of one of said plurality of speech element arrays which differs from said first speech element array by uniquely associating with said person one alternate rendering from the set of alternate renderings and excluding other alternate renderings from further consideration during said period of time, wherein said one of said plurality of speech element arrays is made to correspond to said first speech element array.

30. (Currently Amended) A machine readable storage, having stored thereon a computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps of:

receiving a first user spoken utterance and generating a first speech element array from said first user spoken utterance;

searching correspondence information, said correspondence information associating recognizable words with a plurality of speech element arrays that each comprise associated rendering information for expressing pronunciation of said recognized words, said associated rendering information comprising at least one set of alternate renderings of a recognized word;

generating a first recognized word by comparing said first speech element array and said plurality of speech element arrays in said correspondence information;

lowering a pronunciation prediction probability of one of said plurality of speech element arrays which differs from said first speech element array by uniquely associating with said person one alternate rendering from the set of alternate renderings and excluding other alternate renderings from further consideration during

Appln. No. 09/846,122  
Amendment dated Apr. 07, 2005  
Reply to Office Action of Feb. 07, 2005  
Docket No. 6169-237

IBM Docket No. JP9-2000-0040US1

said period of time, wherein said one of said plurality of speech element arrays is made to correspond to said first speech element array;

receiving a second user spoken utterance and generating a second speech element array from said second user spoken utterance;

searching said correspondence information comprising said lowered pronunciation prediction probability; and

generating a second recognized word by comparing said second speech element array and said plurality of speech element arrays in said correspondence information.

31. (Original) The machine readable storage of claim 30, wherein said correspondence information comprises one of said plurality of speech element arrays having a number corresponding to a measured pronunciation prediction probability corresponding to one of said recognizable words.

32. (Original) The machine readable storage of claim 30, wherein said certain period of time is a period of time for a continued dialog.

33. (Original) The machine readable storage of claim 30, wherein said certain period of time is a period of time including a plurality of dialogs in one day.

34. (Original) The machine readable storage of claim 30, further comprising:  
determining one of said recognized words to be erroneous by referring a speaker to at least part of said one of said recognized words; and  
replacing said erroneous word with a different recognizable word, said different recognizable word capable of being erroneously recognized as said erroneous word.

Appln. No. 09/846,122  
Amendment dated Apr. 07, 2005  
Reply to Office Action of Feb. 07, 2005  
Docket No. 6169-237

IBM Docket No. JP9-2000-0040US1

35. (Original) The machine readable storage of claim 30, further comprising:  
replacing one of said recognized words corresponding to a speech element comprising one syllable with a long vowel with a previously recognized word comprising one syllable with a short vowel corresponding to said long vowel wherein a number of said generated words does not conform to a previously registered number in said speech recognition system.

36. (Original) The machine readable storage of claim 35, further comprising:  
replacing a recognized word corresponding to a speech element comprising one syllable with a short vowel with another previously recognized word corresponding to one syllable with a long vowel, said long vowel corresponding to said short vowel.